Cyst of accessory lacrimal gland

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SUMMARY We present a case of an epithelial cyst of the conjunctiva caused by the dilatation of an accessory lacrimal gland. The case is peculiar in regard to the size of the cyst and the absence of traumatic or inflammatory factors to explain the retention of fluid.

Only a few cases of cysts of the accessory lacrimal gland have been described.¹ In most of them the aetiology is clear, but in some sporadic cases it is unknown.²

Case report

A 29-year-old female patient had for 2 years previous to the consultation noticed that her right eye had been more closed than the left, and that a mass had appeared at the base of the superior conjunctival sac. This mass had increased gradually over the 2 years. She had experienced sporadic diplopia. No pain or other ocular symptoms were noted.

On examination slight ptosis of the right eye was observed. It was caused mechanically by a smooth, globular mass which could be depressed and which caused no inflammatory reaction (Figs. 1, 2). When the patient looked ahead this mass was hidden by the upper lid, but when she made vertical eye movements it was evident at the lid margin. The cyst originated in the superior fornix. The patient's visual acuity was

20/20 in the right eye and 20/20 in the left eye. As regards ocular motility, there was difficulty in superior adduction of the right eye, because there was vertical pseudostrabismus in the primary position caused by inferior displacement by the mass.

On excision the mass was seen to contain serum-like liquid. Ptosis disappeared during the follow-up

Fig. 1

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Fig. 2

Figs. 1 and 2 Mechanical ptosis of right eye and pseudostrabismus. Upper lid covers a smooth, globular mass. This mass, which can be depressed, had its base in the superior fornix and did not cause any inflammation.

Fig. 3 Glandular tissue. The serous parts appear within the conjunctival tissue. A cystic dilatation is surrounded by multistratified epithelium.

period and has not reappeared in the 2 years following surgery.

Histopathological description. The cyst is a rounded body about 2 cm in diameter, whose structure corresponds to that of a lacrimal gland in which the following morphological features can be observed (Fig. 3). Well-formed serous acini are present, some of which show myoepithelial cells. These elements are predominant, though to a less extent glandular acini of mucous type are also to be observed. The greater part of the cellular cytoplasm is occupied by small droplets which show little affinity to stains and which appear to push the nucleus towards the base of the cells.

Cyst cavities of varying sizes are frequent. They are cushioned by a single-layered epithelium of cylindrical cells. Here and there the epithelium seems to present villous projections at its apex. The connective and vascular tissues are not affected.

Discussion

Cysts of the glands of Krause are infrequent. They are generally to be found in the conjunctiva of the fornix and appear clinically as small globular dilatations of elastic consistency. Their pathogenesis is typical of retention cysts: obstruction of the sole excretory duct causes the accumulation of lacrimal fluid produced by the secretory epithelium of the acini in the inter- and

intralobular ducts, which become distended. This obstruction may be due to trauma or to chronic inflammation (trachoma, pemphigus, conjunctivitis),¹ but the formation of these sort of cysts is much less frequent than might be expected, for the secretory epithelium of the gland usually atrophies.

In order to explain those cases in which a cyst due to retention appears without traumatic or inflammatory antecedents it has been suggested that there may be congenital anomalies of the excretory duct (agenesia, imperforation) or alterations in the composition of the secretory products,³ which, if excessively dense, may obstruct the excretory duct.

The seromucous nature of the secretion of the lacrimal glands should be noted. The predominance of a mucous secretion might favour the obstruction from which the cyst develops. During the histological preparation of the cyst under study serous acini were observed together with absolutely typical mucous acini.

References

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